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2005 NOV 30 P 2: 38
AZ CORP COMMISSION
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BEFORE THE ARIZONA CORPORATION COMMISSION

IN THE MATTER OF THE APPLICATION
OF CHAPARRAL CITY WATER
COMPANY, INC., AN ARIZONA
CORPORATION, FOR A
DETERMINATION OF THE CURRENT
FAIR VALUE OF ITS UTILITY PLANT
AND PROPERTY AND FOR INCREASES
IN ITS RATES AND CHARGES FOR
UTILITY SERVICE BASED THEREON.

DOCKET NO. W-02113A-04-0616

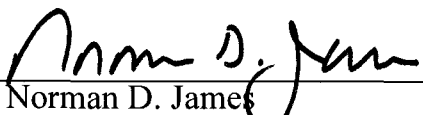
**CHAPARRAL CITY WATER
COMPANY'S NOTICE OF
COMPLIANCE WITH DECISION
NO. 68176**

Pursuant to Decision No. 68176, Chaparral City Water Company ("Chaparral City") submits its Notice of Compliance in the above-captioned matter. Decision No. 68176 required Chaparral City to file with Docket Control, by November 30, 2005, its plan to comply with the United States Environmental Protection Agency rule regarding the maximum contaminant level for arsenic in conditions when the Central Arizona Project ("CAP") is out of service.

Attached hereto as Exhibit 1 is a copy of Chaparral City's plan of compliance with the new maximum contaminant level for arsenic, when CAP water is unavailable.

RESPECTFULLY SUBMITTED this 30th of November, 2005.

FENNEMORE CRAIG

By 
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1 ORIGINAL and 13 copies of the foregoing
2 delivered for filing this 30th day of November, 2005, to:

3 Docket Control
4 Arizona Corporation Commission
5 Utilities Division
6 1200 W. Washington St.
7 Phoenix, AZ 85007

8 COPY of the foregoing hand-delivered
9 this 30th day of November, 2005, to:

10 Brian Bozzo, Compliance Manager
11 Utilities Division
12 Arizona Corporation Commission
13 1200 West Washington
14 Phoenix, AZ 85007

15 By: Michelle M. L.
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EXHIBIT

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November 23, 2005

Mr. Robert Hanford
Chaparral City Water Company
District Manager
12021 N. Panorama Drive
Fountain Hills, AZ 85268

RE: Response to Arizona Corporation Commission (ACC)
Arsenic Rule Compliance during CAP Canal Outage.

Dear Mr. Hanford:

As defined in Docket No. W-02113A-04-0616, the Arizona Corporation Commission (ACC) has directed the Chaparral City Water Company (CCWC) to submit a plan to demonstrate how compliance with the new Arsenic Rule will be achieved when the Central Arizona Project (CAP) canal is out of service. To comply with this directive, CCWC contacted HDR Engineering, Inc. (HDR) for assistance in developing a response to the ACC. This letter report summarizes CCWC's current water production operations, the method of compliance during normal operations after the Arsenic Rule takes effect on January 23, 2006, and the proposed method of compliance with the rule when the CAP Canal is out of service.

Current Water Production Operations

CCWC currently uses both surface water and groundwater supplies to meet the water demands of its customers. Colorado River water, delivered through the CAP Canal, is treated at the Shea Water Treatment Plant (WTP), which has a capacity of 15 million gallons per day (mgd). Groundwater is supplied by Well #10, which has a production capacity of 2.5 mgd (1,700 gallons per minute, gpm), and Well #11, which has a production capacity of 1.6 mgd (1100 gpm).

Water produced at the Shea WTP is primary source of supply for the CCWC distribution system. The wells are used to meet peak demands, but are typically not operated during lower demand periods of the year. Water delivered by CCWC to its customers complies with all drinking water standards in effect as of November 2005.

Arsenic Rule Compliance During Normal Operating Conditions

During normal operations, CCWC relies on surface water as the sole source of supply for drinking water within its service area. The source of surface water is Lake Pleasant and the Colorado River, which is ultimately treated at the Shea WTP. The arsenic

concentration of this water has historically been less than 5.0 parts per billion (ppb). Recent arsenic sample data are shown in Table 1.

Table 1 –Raw Water Arsenic Levels at the Shea WTP

Arsenic Results in mg/L			Flows (CFS)		Total	Flow Percentage	
Sample Date	Date Analyzed	mg/L	Colorado	L. Pleasant	Flow (CFS)	Colorado	L. Pleasant
7/12/2005	7/18/2005	0.003	1200	1960	3160	38%	62%
7/21/2005	7/28/2005	0.004	1010	2000	3010	34%	66%
7/26/2005	7/28/2005	0.003	860	1700	2560	34%	66%
8/2/2005	8/8/2005	<.002	1160	0	1160	100%	0%
8/9/2005	8/12/2005	0.002	685	800	1485	46%	54%
8/16/2005	8/19/2005	0.002	790	1250	2040	39%	61%
8/25/2005	9/20/2005	0.002	620	1200	1820	34%	66%
8/30/2005	9/19/2005	0.003	860	1800	2660	32%	68%
9/6/2005	9/15/2005	0.004	1100	920	2020	54%	46%
9/13/2005	9/15/2005	0.002	1460	400	1860	78%	22%
9/19/2005	9/20/2005	0.003	1730	0	1730	100%	0%

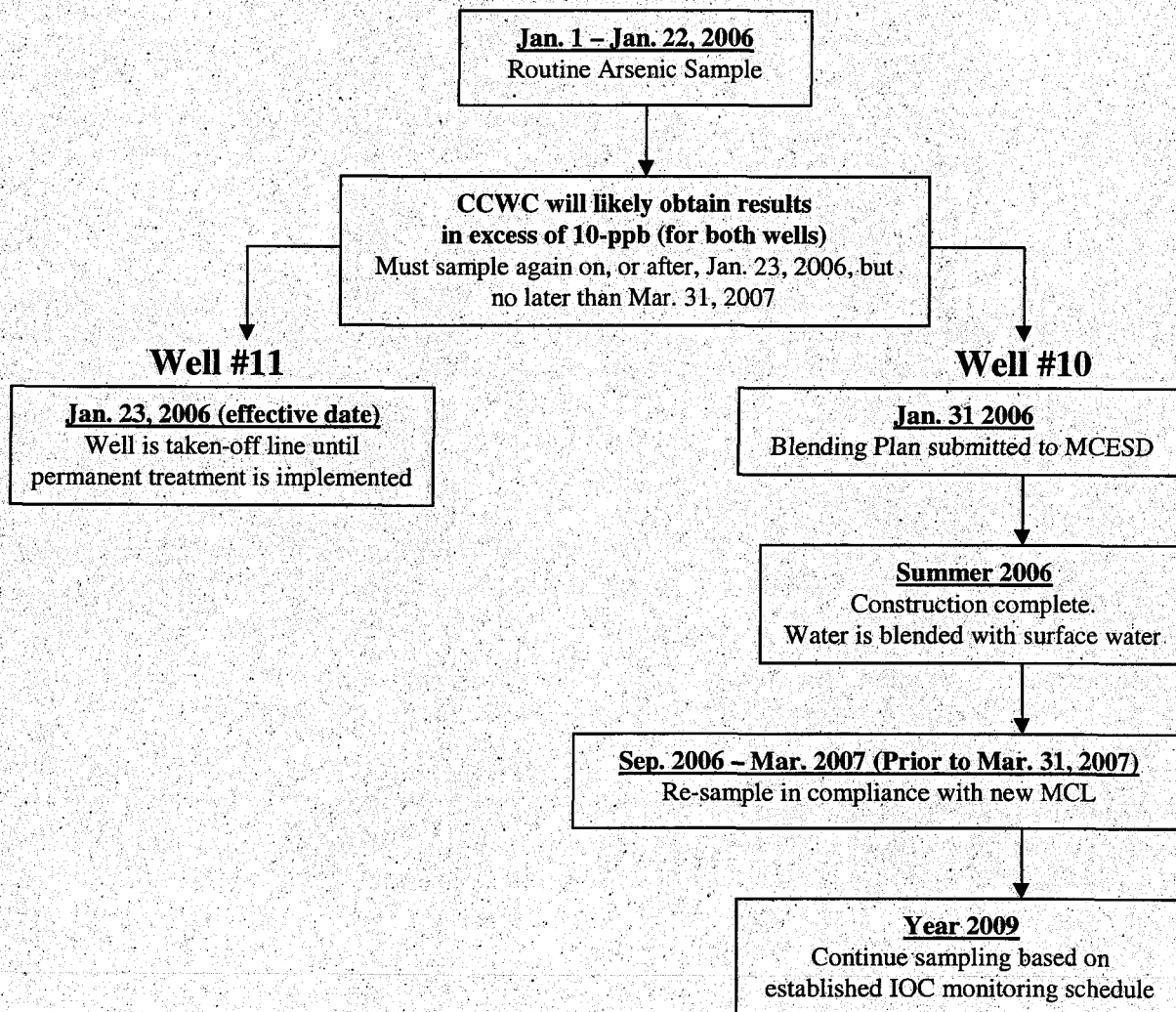
The arsenic concentration in the water supplied to the Shea WTP varies slightly, between 2.0 ppb (or less) and 4.0 ppb, depending on the ratio of the Colorado/Lake Pleasant flows. Regardless of the flow percentage, however, water produced at the Shea WTP will be well below the new arsenic limit of 10.0-ppb, effective January 23, 2006.

Well #10 and Well #11 have a history of producing water with arsenic concentrations in excess of the new arsenic standard. The arsenic levels obtained during a recent step test performed at each of these wells and their respective production capacities are presented in Table 2.

Table 2 – Production Well Arsenic Data

Well #10 Production Capacity = 1700 gpm (2.5 MGD) Sample Date: 1-26-2004	Well #11 Production Capacity = 1100 gpm (1.6 MGD) Sample Date: 2-1-2004
Arsenic Concentration (ppm)	Arsenic Concentration (ppm)
0.011	0.012
0.011	0.011
0.012	0.011
0.012	0.011
0.012	0.011
0.013	0.012
0.012	0.012
0.013	0.011
0.013	0.012
0.014	0.012
Average = 0.0123 ppm (12 ppb)	Average = 0.0115 ppm (12 ppb)

With an established monitoring year of 2003, CCWC will proceed with routine compliance sampling in 2006. Arsenic samples at established points of entry in the distribution system will be taken during the time period of January 1, 2006 and January 22, 2006. Based on the water quality data presented in Table 2, the arsenic concentrations are anticipated to exceed 10-ppb during this sample event. According to the Arizona Department of Environmental Quality (ADEQ) guidance documents, CCWC will be required to sample again on, or after, January 23, 2006, but prior to March 31, 2007 to meet the compliance determination deadline of December 31, 2007. The following schematic displays the sequence of events for each respective well starting at the beginning of January 2006.



As of the effective date of the revised rule and new standard, CCWC intends to physically disconnect Well #11 from the distribution system by removing a spool piece from the discharge line. A means to pump-to-waste will be implemented to periodically exercise the well. This well is not intended to be connected to the system unless a severe emergency condition warrants its use. In the future, CCWC intends to budget and implement permanent arsenic treatment at this well facility, allowing this supply to be used to meet future water demands.

At Well #10, CCWC is currently developing a plan to blend groundwater with the water from Zone 2, which is supplied by the Shea WTP. According to sampling data collected at this treatment facility, the average arsenic concentration of the finished water is approximately 3-ppb. CCWC anticipates submitting this blending plan to the Maricopa County Environmental Services Department (MCESD) by the end of January 2006. Following MCESD acceptance of the blending plan and issuance of an Approval to Construct (ATC) permit, CCWC will proceed with the modifications necessary to allow for blending. A flow control valve will be placed on the transmission main from the Shea WTP to provide the ability to throttle flow. An in-line static mixer will be placed downstream of the well tie-in point to provide in-pipe blending. The sampling point of compliance will be relocated from the well discharge line to a location downstream of the static mixer, but upstream of the first user. These modifications are intended to be completed by the end of summer 2006. Another sample will be taken following these modifications, but prior to the March 31, 2007 deadline. A schematic of the proposed piping modification is shown in Figure 1.

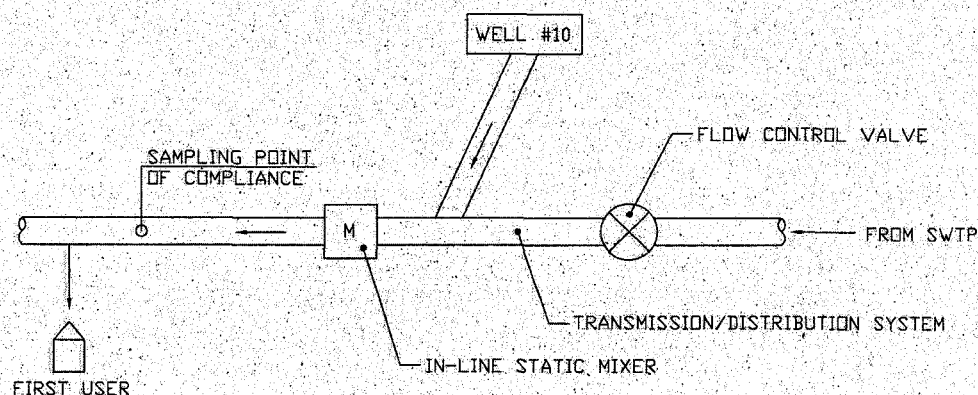


Figure 1 – Well #10 Blending Schematic

Arsenic Rule Compliance During a CAP Canal Outage

Colorado River water transported through the CAP Canal has been a reliable source of supply for CCWC since the Shea WTP was first placed in service in 1986. A loss of this supply could only occur through either a shortage of water, or through a shutdown of the CAP Canal. To account for supply shortages, a water use hierarchy is in place among all water users supplied by the CAP Canal. A shortage sharing agreement states that in time of shortage, miscellaneous uses would be eliminated first, followed by Non-Indian Agricultural (NIA) uses. Only after NIA use was reduced to zero would there be any reductions in Municipal and Industrial (M&I), such as the CCWC supply, or Indian use.

A drought situation would have to be very lengthy and severe before the CAP supply to the Shea WTP would be totally eliminated.

To determine the extent and frequency of a CAP Canal shutdown, HDR contacted the CAP Supervisor of Operations regarding the history of canal outages. In the past five years, only one unexpected outage occurred along the canal which impacted the water supply to downstream users. This event occurred in 2003 when the Waddell Pumping Plant at Lake Pleasant was temporarily out-of-service for repairs following a severe storm north of Lake Pleasant. While the Waddell Pumping Plant was out-of-service, CAP supply was limited to canal storage only. Although the allotment of various downstream users was reduced during this time, CCWC and other smaller utilities with minimal withdrawal rates (i.e., 10 mgd or less) were not affected. CCWC was allowed to withdraw the same amount of water from the CAP Granite Reef Aqueduct as they normally do when both the canal and Lake Pleasant are operating at full capacity.

During planned outages along the canal, provisions are made so that downstream users are not affected and the canal is never dewatered. These outages coincide with the maintenance schedule requiring siphon inspections. Every five years, each of the steel and reinforced concrete pipe siphons along the canal are required to be inspected. However, from information provided by CAP personnel, the canal stretch between Lake Pleasant and the outfall for CCWC contains only one siphon. This siphon was intentionally constructed utilizing poured-in-place concrete, which does not require inspection. Therefore, no planned outages are scheduled along this stretch of the canal.

Based on the information regarding unexpected and planned outages along the CAP Canal, and the hierarchy of water supply, the probability of a loss of the CAP supply, either short-term or extended, is minimal. However, to address the concerns of the ACC regarding arsenic rule compliance, the following scenario demonstrates that CCWC could provide water which meets the arsenic standard during a 6-month loss of the CAP supply.

If the CAP supply was completely cut-off, such that the Shea WTP could not produce water, then CCWC would have to rely on the production from Well #10 and Well #11 to meet system demands. In this scenario, CCWC would be required to implement their curtailment tariff. All customers, regardless of customer class, would have to comply with specified water conservation measures and other actions to reduce each customer's normal water use. During a Stage-4 curtailment, CCWC would disconnect over 400 irrigation customers, and has projected that water demand would be reduced by approximately 50 percent. The demand during a Stage-4 curtailment can be satisfied with both Well #10 and Well #11 operating at full capacity.

For groundwater sources, compliance with the revised MCL for arsenic is based on a running annual average of four quarterly samples. The following scenarios demonstrate that CCWC could operate their wells under a Stage-4 curtailment for a duration of 6-months (without CAP supply) and continue to provide arsenic compliant water to their customers, determined by a running annual average.

Well #10 typically produces water with arsenic concentrations of 12-ppb. Following the installation of the blending connection at this well, CCWC expects to maintain an arsenic concentration at the sampling point of 8-ppb or less. Assuming 6-months (two sampling quarters) of non-blended operation, and 6-months (two sampling quarter) of blended operation at 8-ppb, the running annual average will be 10.0-ppb, which is in compliance with the new standard, as shown below.

Well #10 Compliance Scenario

1st Quarter Well #10 Entry - result 0.0120-ppm (12-ppb)
2nd Quarter Well #10 Entry - result 0.0120-ppm (12-ppb)
3rd Quarter Well #10 Entry - result 0.0080-ppm (8-ppb) (SWTP finished water blend)
4th Quarter Well #10 Entry - result 0.0080-ppm (8-ppb) (SWTP finished water blend)
Running Annual Average: 0.010-ppm (10.0-ppb)

If needed, CCWC can adjust the blend to obtain a lower arsenic concentration to ensure that the running annual average is less than the 10-ppb limit.

In an emergency situation, Well #11 would be reconnected to the distribution system, and a similar compliance scenario would occur. Well #11, which typically produces water with arsenic concentrations of 12-ppb, could be operational for at least 6-months (two sampling quarters of the year and non-operational for the remaining two quarters. During the two quarters that Well #11 is off-line, arsenic samples taken at the point of entry for the well will be 3-ppb, based on concentrations in the distribution water present at the point of entry. The running annual average would thus be 7.5-ppb, which complies with the new standard.

Well #11 Compliance Scenario

1st Quarter Well #11 Entry - result 0.0120-ppm (12-ppb)
2nd Quarter Well #11 Entry - result 0.0120-ppm (12-ppb)
3rd Quarter Well #11 Entry - result 0.0030-ppm (3-ppb) (SWTP finished water)
4th Quarter Well #11 Entry - result 0.0030-ppm (3-ppb) (SWTP finished water)
Running Annual Average: 0.0075-ppm (7.5-ppb)

Thus, if the CAP water supply was reduced to zero for a period of 6-months, which is significantly longer than any historical interruption of service, and CCWC has to resort to groundwater sources only, customers would still be supplied with water meeting a running annual average of 10-ppb for the sampling year. From a long-term perspective, CCWC plans to budget and implement permanent arsenic treatment facilities at both well sites.

Summary

Based on the sampling provisions in the Arsenic Rule, the historical arsenic levels in the treated surface water and groundwater supplies, and the likely extent of a CAP canal "out

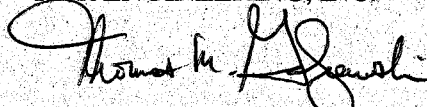
Mr. Robert Hanford
Chaparral City Water Company
Page 8
November 23, 2005

of service" event, the water supplied by CCWC to its customers will be below the new maximum contaminant level of 10 ppb on an annual average basis. From a long-term perspective, CCWC is aware that overall system demands will eventually increase to a level that will require the use of groundwater on a regular basis. To stay in compliance with the Arsenic Rule with future increased well usage, CCWC ultimately plans to install arsenic treatment at the well sites.

If you have any questions regarding this correspondence or require additional information, please contact me at (602) 522-4343.

Sincerely,

HDR ENGINEERING, INC.



Thomas M. Galeziewski, P.E.
Sr. Project Manager

cc: Mr. Patrick J. Black, Fennemore Craig
Mr. Marlin Scott, Jr. (Arizona Corporation Commission)

